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EXAMINER				
KING, FELICIA C				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,738

Applicant(s)

HOWARD ET AL.

Examiner

FELICIA C. KING

Art Unit

4152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 9/19/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This detailed action is in response to claims 1-22, filed 7/11/2006.

Claim Objections

1. Claims 5, 6, 7, 8, 10, 12 and 16 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Claims have been examined although they need not have been examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9, 11, 12, 13, 14, 15, 16, 17, 20, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 9, 11, 12, 13, 14, 15, 16, 17, 20, and 22 contain the trademark/trade names Hylon VII, Hamultop 391, H0w1, Modified Potato Starch E1412, Puron AG. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods

associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe starch, emulsifier, stabilizer, modified potato starch, Sodium Acid Pyrophosphate respectively and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Higgins et al. (U.S. Patent Number 5,976,607).**

1. **Regarding Claim 18:** Higgins discloses a coating for a potato article, the coating comprising oil [col. 6, lines 52-55], starch col. 7, lines 22-23], salt [col.6, line 59], and tint (coloring) [col. 6, line 57].

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-4, 6, 7, 12, 13,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607) and further in view of Sloan et al. (U.S. Patent Number 5,141,759).**

6. **Regarding Claim 1:** A method of preparing a potato based food product, the method comprising the steps of: processing potatoes into potato articles having a desired size and shape, blanching said potato articles, dipping said blanched potato articles in a solution to prevent non-enzymic oxidation of the potato articles, drying said potato articles, coating said potato articles in an emulsion containing starch, oil, salt and colouring, introducing said coated articles into a hot air environment; and removing said articles from said hot air environment.

7. Higgins discloses a method of preparing a potato based food product [col.7, lines 63-64], the method comprising the steps of processing potatoes into potato articles having a desired size and shape [col. 7, lines 63-65], blanching said potato articles [col. 7, line 66], dipping said blanched potato articles in a solution to prevent non-enzymic oxidation of the potato articles [col. 7, line 67; col. 8, lines 1-2], drying said potato articles [col. 7, line 4], coating said potato articles in an emulsion containing starch, oil, salt and colouring in the form of paprika [col.6, lines 42-60].

8. Higgins does not disclose introducing coated articles into a hot air environment; and removing articles from hot air environment. However, Sloan discloses introducing potato strips to a hot air environment [col. 3, lines 19-20; col. 5, lines] and removing the strips from the hot air environment [col. 3, lines 31-33 where the strips are taken down to 65°F].

9. Higgins and Sloan are analogous art because they are from the same field of endeavor which is coated food products.

10. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins and Sloan before him or her to modify the method of Higgins to include a drying step disclosed in Sloan because drying the potato article may effectuate a desirable moisture loss [Sloan col. 5, lines 36-37] since the potato article in Higgins is contacted with an aqueous starch solution and it would be undesirable to present a soggy potato article to the consumer.

11. **Regarding Claim 2:** A method as claimed in claim 1 wherein the step of blanching the articles comprises immersing the potato articles in a heated water bath at a temperature of between 70 °C to 95 °C for between 5 minutes to 20 minutes.
12. Higgins discloses the step of blanching where the articles are blanched in 170°F (76°C) water for about 7 minutes [col. 7, lines 66-67].
13. **Regarding Claim 3:** A method as claimed in claim 1 or claim 2 wherein the step of dipping said blanched potato articles in a solution to prevent non-enzymic oxidation of the potato articles comprises immersing the articles in a Sodium Acid Pyrophosphate solution.
14. Higgins discloses placing blanched potatoes in a solution containing Sodium Acid Pyrophosphate ("SAPP") [col. 8, lines 1-2].
15. **Regarding Claim 4:** A method as claimed in claim 3 wherein the Sodium Acid Pyrophosphate solution comprises 1% Sodium Acid Pyrophosphate.
16. Higgins discloses .5%-2% Sodium Acid Pyrophosphate [col. 7, lines 11-12].
17. **Regarding Claim 6:** A method as claimed in any preceding claim wherein the step of drying the blanched and dipped potato articles comprises introducing the articles into an elevated temperature environment.
18. Higgins discloses drying blanched and dipped potatoes that are oven dried at 180 -190°F [col. 8, lines 3-4].
19. **Regarding Claim 7:** A method as claimed in any of claims 1 to 5 wherein the blanched and dipped potato articles are dried at ambient temperature.

20. Higgins discloses drying blanched and dipped potatoes that are oven dried at 180 -190°F [col. 8, lines 3-4] which is the temperature range necessary to obtain the targeted moisture loss.

21. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the temperature and time for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

22. **Regarding Claim 12:** A method as claimed in any preceding claim, the method may include the additional step of drying the potato articles after coating in the emulsion.

23. Higgins and Sloan disclose as discussed in "Regarding Claim 1".

24. **Regarding Claim 13:** A method as claimed in claim 12 wherein the second drying step comprises introducing the coated articles into a warm air environment.

25. Higgins and Sloan disclose as discussed in "Regarding Claim 1".

26. **Regarding Claim 16:** A method as claimed in any preceding claim wherein the final step of introducing the coated articles into a hot air environment comprises introducing the coated articles into an impingement oven.

27. Higgins discloses as discussed above but does not disclose introducing the article to a hot air environment which is an impingement oven.

28. However, Sloan discloses heating in an impingement oven [col. 6, lines 66-68].

29. At the time of the invention it would have been obvious to one of ordinary skill in the art to having the teachings of Higgins and Sloan before him or her to modify Sloan

to incorporate the impingement oven because it provides another option in the cooking of potato articles since results from heating using conventional methods were identical to that of using an impingement oven [Sloan; col. 5, lines 5-6, col.6. lines 66-68].

30. **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607) and Sloan et al. (U.S. Patent Number 5,141,759) and further in view of Baisier et al. (U.S. Patent Number 5,279,840).**

31. **Regarding Claim 5:** A method as claimed in claim 3 or claim 4 wherein the Sodium Acid Pyrophosphate solution is provided at a temperature of 65 °C and the articles are immersed for a time period of around 60 seconds.

32. Higgins discloses Sodium Acid Pyrophosphate solution at a temperature of 130°F (54°C) for 30 seconds [col. 8, lines 1-2] but does not disclose Sodium Acid Pyrophosphate solution at a temperature 65°C for around 60 sec.

33. Sloan discloses as discussed above.

34. However, Baisier discloses a potato strip that is immersed in Sodium Acid Pyrophosphate solution at a temperature of 130°F-170°F (54°C-76°C) for about 1 minute (60 sec.) [col. 5, lines 42-44].

35. Higgins, Sloan and Baisier are analogous art because they are from the same field of endeavor which is coated potato products.

36. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins, Sloan and Baisier before him or her to modify the dipping step of Higgins to include the temperature and time of Baisier because it is common practice in the art to dip blanched strips of SAPP solution for as long as five

minutes [col. 1, lines 52-53] and to perform the step at a range of 130°F-170°F [col. 5, lines 43-44]. Baisier suggests that the sugar content of potatoes is a determining factor in whether a SAPP step is needed [col. 1, lines 58-61] which may suggest that the time and temperature of exposure to SAPP depends on the type of potato utilized. Thus it would have been obvious to combine Baisier with Higgins to perform the SAPP as specified in the claims.

37. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the temperature and time for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

38. **Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607) and Sloan et al. (U.S. Patent Number 5,141,759) and further in view of Anderson et al. (U.S. Patent Number 5,139,800).**

39. **Regarding Claim 8:** A method as claimed in any preceding claim wherein the emulsion comprises a mixture including water, oil, starch, colouring, emulsifier, stabilizer and salt.

40. Higgins discloses a coating containing water [col. 6, lines 61-64], oil [col. 6, lines 52-54], starch [col. 5, lines 42- 58], tint (colouring) [col. 6, line 57-58] stabilizer [col. 6, lines 4-12], salt [col. 6, line 59] but does not explicitly disclose an emulsifier.

41. Sloan discloses as discussed above.

42. However, Anderson discloses emulsifiers [col.3, lines 47-52].

43. Higgins, Sloan, and Anderson are analogous art because they are from the same field of endeavor which is coatings for food products.

44. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins, Sloan and Anderson before him or her to modify the coating compositions of Higgins and Sloan to include the emulsifier of Anderson because emulsifiers are useful in food coated products [Anderson col. 5, lines 42-43], and it would contribute to a more uniform dispersion of coating along the potato product [Francis, pg 611].

45. **Regarding Claim 9:** A method as claimed in claim 8 wherein the emulsion comprises: Water 53.00% - 60.00%, Sunflower Oil 24.00% - 28.00%, Starch (Hylon V11) 10.00% - 12.00%, Turmeric - 0.01% - 0.10% Liquid Paprika 0.01% - 0.10%, Hamultop 391 emulsifier- 0.80% - 1.00%, HOw 1 stabiliser - 0.10% - 0.30%, Salt 4.00% - 6.00%

46. Higgins discloses water at 20%-90% [col. 6, lines 61-64], Starch 10%-80% [col.6, lines 48-50], stabilizer .05%- 4.5% [col. 7, lines 8-9], salt 6.19% but does not explicitly disclose a percentage of Sunflower oil, turmeric, liquid paprika, emulsifier.

47. Sloan discloses as discussed above.

48. However Anderson discloses Sunflower Oil 10%-99% [col.5, lines 30-37], Turmeric .01%-0.10% [col. 5, lines 3-4], paprika 0.01%-.10% [col. 5, lines 25-27], emulsifier 0.5%-10% [col.5, lines 46-47].

49. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins, Sloan and Anderson before him or her to modify

the coating compositions of Higgins and Sloan to include the Sunflower oil, turmeric, liquid paprika, and emulsifier of Anderson because they are ingredients commonly used in coating food products and aiding in coloring of food compositions that are cooked [col. 1, lines 33-35; col. 6, lines 14-19].

50. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the percentages of ingredients for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

51. **Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607) and Sloan et al. (U.S. Patent Number 5,141,759) and further in view of Higgins et al. (U.S. Patent Number 5,753,286).**

52. **Regarding Claim 10:** A method as claimed in any of claims 1 to 8 wherein the emulsion comprises a mixture including water, oil, starch, flour, dextrin, gum, Sodium Bicarbonate, salt, colouring, oil, Sodium Acid Pyrophosphate and dextrose.

53. Higgins (5,976,607) discloses water [col. 6, lines 61-63], oil [col.6, lines 52-53], starch col. 6, lines 41-43], flour [col.5, lines 43-44], dextrin [col.6, lines 28-29], gum [col.6, lines 4-5], Sodium bicarbonate [col. 6, lines 20-25], salt [col.6, line 59], coloring [col. 6, line 57], oil [col.6 , lines 52-55], Sodium Acid Pyrophosphate [Col. 6, lines 13-15], but does not disclose dextrose.

54. Sloan discloses as discussed above.

55. However, Higgins (5,753,286) discloses dextrose [col. 11, lines 2-3].

56. Higgins (5,976,607), Sloan and Higgins (5,753,286) are analogous art because they are from the same field of endeavor which is coatings for food products.

57. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins (5,976,607), Sloan and Higgins (5,753,286) before him or her to modify Higgins (5,976,607) to include the dextrose of Higgins (5,753,286) because dextrose is an effective coloring agent and is commonly used in batter to aid in the browning appearance of food products [col. 10, lines 66-67, col. 11, lines 1-4].

58. **Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607), Sloan et al. (U.S. Patent Number 5,141,759) and of Higgins et al. (U.S. Patent Number 5,753,286) and further in view Anderson et al. (U.S. Patent Number 5,139,800).**

59. **Regarding Claim 11:**

A method as claimed in claim 10 wherein the emulsion comprises:

Water 48.00% - 54.00%

Sunflower oil 13.00% - 16.00%

Modified Potato Starch E1412 - 9.00% - 11.00%

Rice Flour 5.00% - 7.00%

Potato Dextrin - 9.00% - 11.00%

Maize Starch - 4.00% - 6.00%

Xanthan Gum - 0.01% - 0.10%

Sodium Bicarbonate - 0.30% - 0.40%

Puron AG- 0.40% - 0.50%

Salt - 1.00% - 2.00%

Tumeric Extract Powder - 0.01% - 0.10%

Paprika Oleoresin - 0.01% - 0.10%

Vegetable Oil - 0.01% - 0.10%

Dextrose - 0.30% - 0.40%

Guar Gum - 0.01% - 0.10%

60. Higgins (5,976,607) discloses water at 20%-90% [col. 6, lines 61-64], Modified Potato Starch 15-60% [col. 7, lines 22-23], Rice Flour 5-20% [col.7, line 6], Potato dextrin 0-15% [col. 6, line 29; col. 7, line 7], Xanthan gum .05%-4.5% [col.7, line 8], Sodium Bicarbonate .8% [col.8, line 20], Puron AG (SAPP 40) 0.5% [col.9, line26], vegetable oil .1%-1.0% [col. 6, lines 52-55] but does not disclose the percentage of Maize starch, dextrose, sunflower oil, turmeric, paprika oleoresin, and guar gum.

61. However, Sloan discloses Maize starch 5% [col. 5, line 20].

62. Further, Higgins (5,753,286) discloses dextrose 1-20% [col.11, lines 2-3].

63. Further, Anderson discloses Sunflower Oil 10%-99% [col.5, lines 30-37], Turmeric .01%-0.10% [col. 5, lines 3-4], Paprika oleoresin 0.01%-.10% [col. 5, lines 25-27], guar gum .05%-.4% [col.3, lines 60-64].

64. Higgins (5,976,607), Sloan, Higgins (5,753,286) and Anderson are analogous art because they are from the same field of endeavor which is coating for food products.

65. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins (5,976,607), Sloan, Higgins (5,753,286) and

Anderson before him or her to modify the composition in Higgins (5,976,607) to include the additions disclosed in Sloan, Higgins (5,753,286) and Anderson because the maize starch in Sloan in combination with potato starch contributes to the crispness of the coating [col. 4, lines 7-10], because the dextrose in Higgins contributes to the browning capabilities of the coating composition [col. col. 10, lines 66-67, col. 11, lines 1-4], because in Anderson the sunflower oil may be used interchangeably with many other oils and is effective in its disclosed amounts [col. 3, lines 36-43], turmeric and paprika are natural colorants and help achieve the desired color in the food coating [col. 5, lines 1-6] and guar gum which would make the composition more viscous [col. 5, lines 5—56].

66. Further, the named Higgins (5,976,607), Sloan, Higgins (5,753,286) and Anderson and the instant claims differ in that they do not teach the exact same proportions as the recited in the instant claims.

67. However, one having ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Higgins (5,976,607), Sloan, Higgins (5,753,286) and Anderson overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one having ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that; "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set

of percentage ranges is the optimum combination of percentages", *In re Peterson* 65 USPQ 2d 1379.

68. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the percentages for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

69. **Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607) and further in view of Sloan et al. (U.S. Patent Number 5,141,759) and further in view of Keijbets (The manufacture of pre-fried Food products, *Frying: Improving Quality* 2001).**

70. **Regarding Claim 14:** A method as claimed in claim 13 wherein the coated articles are dried at a temperature of between 100 °C and 130 °C.

71. Higgins and Sloan disclose as discussed above but do not disclose dried articles at a temperature of between 100 °C and 130 °C.

72. However, Keijbets discloses drying at temperatures between 70°C-120°C.

73. Higgins, Sloan and Keijbets are analogous art because they are from the same field of endeavor which is making food compositions.

74. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins, Sloan and Keijbets before him or her to modify Higgins and Sloan to incorporate the temperatures in Keijbets because this range of temperatures are favorable and are commonly used drying potato articles and further

aids in producing the crisp texture found in these products [pg. 203, section 9.55. Drying].

75. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the oven temperature for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

76. **Regarding Claim 15:** A method as claimed in claim 14 wherein the coated articles are dried at a temperature of between 105 °C and 120 °C.

77. See above "Regarding Claim 14".

78. **Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607) and further in view of Sloan et al. (U.S. Patent Number 5,141,759) and Collinge et al (6,132,785).**

79. **Regarding Claim 17:** A method as claimed in claim 16 wherein the hot air environment has a temperature of between 240 °C to 285 °C.

80. Higgins and Sloan disclose as discussed above but do not disclose a temperature range for the hot air environment.

81. However, Collinge discloses an impingement oven where the hot air environment is 350°F -450°F (177°C -232°C) [col. 5, lines 50-56].

82. Higgins, Sloan and Collinge are analogous art because they are from the same field of endeavor which is coatings for food products.

83. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins, Sloan and Collinge before him or her to modify

Higgins and Sloan to state a desired temperature range as in Collinge because potato articles cooked around this temperature has a comparable finish as seen in potato articles that are fried [col.5, lines 55-58].

84. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the temperature for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

85. **Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607) and further in view of Anderson et al. (U.S. Patent Number 5,139,800).**

86. **Regarding Claim 19:** A coating as claimed in claim 18 wherein the emulsion comprises a mixture including water, oil, starch, colouring, emulsifier, stabilizer and salt.

87. Higgins discloses water [col. 6, lines 61-64], oil [col. 6, lines 52-54], starch [col. 5, lines 42- 58], tint (colouring) [col. 6, line 57-58] stabilizer [col. 6, lines 4-12], salt [col. 6, line 59] but does not disclose an emulsifier.

88. However, Anderson discloses emulsifiers [col.5, lines 46-47].

89. Higgins and Anderson are analogous art because they are from the same field of endeavor which is coatings for food products.

90. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins and Anderson before him or her to modify the coating composition of Higgins to include the emulsifier of Anderson because emulsifiers are useful in food coated products [Anderson col. 5, lines 42-43], and it

would contribute to a more uniform dispersion of coating along the potato product [Francis, pg 611].

91. **Regarding Claim 20:** A coating as claimed in claim 19, the emulsion comprising:

Water - 53.00% - 60.00%

Sunflower Oil - 24.00% - 28.00%

Starch (Hylon V11) -10.00% - 12.00%

Tumeric - 0.01% - 0.10%

Liquid Paprika - 0.01% - 0.10%

Hamultop 391 emulsifier - 0.80%- 1.00%

HOw 1 stabiliser - 0.10%- 0.30%

Salt - 4.00% - 6.00%

92. Higgins discloses water at 20%-90% [col. 6, lines 61-64], Modified Potato Starch 15-60% [col. 7, lines 22-23] Stabilizer .05%-4.5% [col.7, line 8], salt 6.19% [col. 9, line 48] but does not disclose sunflower oil, turmeric, and paprika oleoresin.

93. Anderson discloses Sunflower Oil 10%-99% [col.5, lines 30-37], Tumeric .01%-0.10% [col. 5, lines 3-4], Paprika oleoresin 0.01%-10% [col. 5, lines 25-27].

94. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins and Anderson before him or her to modify the composition in Higgins to include the additions disclosed in Anderson because the sunflower oil may be used interchangeably with many other oils and is effective in its

disclosed amounts [col. 3, lines 36-43] , turmeric and paprika are natural colorants and help achieve the desired color in the food coating [col. 5, lines 1-6.

95. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the percentages for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

96. **Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607) and further in view of Higgins et al. (U.S. Patent Number 5,753,286).**

97. **Regarding Claim 21:** A coating as claimed in claim 18 wherein the emulsion may comprise a mixture including water, oil, starch, flour, dextrin, gum, Sodium Bicarbonate, salt, colouring, oil, Sodium Acid Pyrophosphate and dextrose.

98. Higgins (5,976,607) discloses water [col. 6, lines 61-63], oil [col.6, lines 52-53], starch col. 6, lines 41-43], flour [col.5, lines 43-44], dextrin [col.6, lines 28-29], gum [col.6, lines 4-5], Sodium bicarbonate [col. 6, lines 20-25], salt [col.6, line 59], coloring [col. 6, line 57], oil [col.6 , lines 52-55], Sodium Acid Pyrophosphate [Col. 6, lines 13-15], but does not disclose dextrose.

99. However, Higgins (5,753,286) discloses dextrose [col. 11, lines 2-3].

100. Higgins (5,976,607) and Higgins (5,753,286) are analogous art because they are from the same field of endeavor which is coatings for food products.

101. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Higgins (5,976,607) and Higgins (5,753,286) before him

or her to modify Higgins (5,976,607) to include the dextrose of Higgins (5,753,286) because dextrose is an effective coloring agent and is commonly used in batter to aid in the browning appearance of food products [col. col. 10, lines 66-67, col. 11, lines 1-4].

102. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins et al. (U.S. Patent Number 5,976,607), Sloan et al. (U.S. Patent Number 5,141,759) and of Higgins et al. (U.S. Patent Number 5,753,286) and further in view Anderson et al. (U.S. Patent Number 5,139,800).

103. Regarding Claim 22: A coating as claimed in claim 21, the emulsion comprising:

Water - 48.00% - 54.00%

Sunflower oil -13.00% - 16.00%

Modified Potato Starch E1412 - 9.00% - 11.00%

Rice Flour - 5.00% - 7.00%

Potato Dextrin - 9.00% - 11.00%

Maize Starch - 4.00% - 6.00%

Xanthan Gum - 0.01% - 0.10%

Sodium Bicarbonate - 0.30% - 0.40%

Puron AG - 0.40% - 0.50%

Salt - 1.00% - 2.00%

Tumeric Extract Powder - 0.01% - 0.10%

Paprika Oleoresin -0.01% - 0.10%

Vegetable Oil - 0.01% - 0.10%

Dextrose - 0.30% - 0.40%

Guar Gum - 0.01% - 0.10%

104. Higgins (5,976,607) discloses water at 20%-90% [col. 6, lines 61-64], Modified Potato Starch 15-60% [col. 7, lines 22-23], Rice Flour 5-20% [col.7, line 6], Potato dextrin 0-15% [col. 6, line 29; col. 7, line 7], Xanthan gum .05%-4.5% [col.7, line 8], Sodium Bicarbonate .8% [col.8, line 20], Puron AG (SAPP 40) 0.5% [col.9, line26], vegetable oil .1%-1.0% [col. 6, lines 52-55],

105. Sloan discloses Maize starch 5% [col. 5, line 20]

106. Higgins (5,753,286) discloses dextrose [col.11, lines 2-3].

107. Anderson discloses Sunflower Oil 10%-99% [col.5, lines 30-37], Turmeric .01%-0.10% [col. 5, lines 3-4], Paprika oleoresin 0.01%-.10% [col. 5, lines 25-27], guar gum .05%-.4% [col.3, lines 60-64].

108. Higgins (5,976,607), Sloan, Higgins (5,753,286) and Anderson are analogous art because they are from the same field of endeavor which is coating for food products.

109. At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Higgins (5,976,607), Sloan, Higgins (5,753,286) and Anderson before him or her to modify the composition in Higgins (5,976,607) to include the additions disclosed in Sloan, Higgins (5,753,286) and Anderson because the maize starch in Sloan in combination with potato starch contributes to the crispness of the coating [col. 4, lines 7-10], because the dextrose in Higgins contributes to the browning capabilities of the coating composition [col. col. 10, lines 66-67, col. 11, lines 1-4],

because in Anderson the sunflower oil may be used interchangeably with many other oils and is effective in its disclosed amounts [col. 3, lines 36-43] , turmeric and paprika are natural colorants and help achieve the desired color in the food coating [col. 5, lines 1-6] and guar gum which would make the composition more viscous [col. 5, lines 5—56].

110. Further, Higgins, Sloan, Higgins and Anderson and the instant claim differ in that they do not teach the exact same proportions as the recited in the instant claims.

111. One having ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Higgins, Sloan, Higgins and Anderson overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one having ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that; "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", *In re Peterson* 65 USPQ 2d 1379.

112. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the percentages for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

Conclusion

113. Examiner further notes: Keijbets, Frying: Improving Quality Woodhead Publishing 2001. Part III Improving Product Quality, Chapter 9: *The Manufacture of pre-fried potato products*. Further discussing how impingement drying provides a way of making a low fat potato article that has the same crisp texture as compared to its oil fried counterpart and that impingement drying is successfully performed at 177°C. pg 311.

114. Examiner notes: Francis, Encyclopedia of Food Science and Technology Second Edition Vol. 1 2000. Emulsifiers, Stabilizers, and Thickeners: pg 611.

115.

116. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FELICIA C. KING whose telephone number is (571)270-3733. The examiner can normally be reached on Mon- Thu 7:30 a.m.- 5:00 p.m.; Fri 7:30 a.m. - 4:00 p.m. alternate Fridays off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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